

## **ROLE OF ICT IN DIMINISHING COLLUSION IN PROCUREMENT**

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**ABSTRACT.** The Brazilian procurement law foresees a legal/fiscal qualification before the technical and price phases. Contrary to the intention, scrutiny of the proposals in the presence of bidders creates more room for collusion. After five attempts to reform the legislation, little success was achieved. This is mainly due to the size of the procurement market in Brazil and the varied issues involved. Under the shortcomings of the law, Government devised an ICT strategy for procurement to try to diminish possibilities for collusion and render more transparency to the process. The paper intends to study the Government ICT procurement strategy, lessons learned, successes achieved and pitfalls of the Brazilian experience.

### **INTRODUCTION**

Studies conducted by international non-government organizations, such as Transparency International, hint that public sector inefficiencies, including corruption practices, may account for a waste of 3% to 10% of GDP; thus reducing national growth by up to 2%<sup>1</sup>. The public sees the procurement of goods, services and civil works, especially through the lack of transparency and subjectivity permitted by closed doors traditional tendering methods as the main area for inefficiency in public spending. The implementation of e-government procurement (e-GP) has been considered one of the most promising and feasible paths to be followed by public administration in rendering transparency and efficiency in the acquisition of goods and services for the public sector.

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<sup>1</sup> According to Transparency International-Brazil.

This Paper has the aim of analyzing the results obtained by the Brazilian Government Strategy in the use of a specifically developed e-GP system denominated SIASG/Comprasnet ([www.comprasnet.gov.br](http://www.comprasnet.gov.br)).

This system is composed of a structuring system, i.e., a robust back office application, running on legacy-based technology, which is operated internally by the Government, coupled with a web interface with suppliers and the general public that enables to process the whole procurement cycle (including post award contract administration) of commodities (sundries and standard quality goods and services), as well as the critical phase of the tendering cycle. Considering that the System is responsible for the processing around USD 5 to USD 6 billion (US dollars) worth of supplies for the Federal public sector, which is equivalent to about 10% of the net Federal Budget<sup>2</sup>, that is, 1% of the GDP. If one aggregates the transparency rendered to the execution of civil works through the coupling of the SIASG/Comprasnet to the SIASG/Obrasnet (responsible for guiding and informing the execution of civil works contracts), the e-GP applications implemented by the Government account for up to USD 8.5 billion (US dollars). This amount is equivalent to 15% of the budget (1.5% of GDP)<sup>3</sup>.

The role of SIASG/Comprasnet in promoting efficiency and transparency in the GP of the Brazilian Government has rendered great interest in the context of the international dissemination of e-commerce and in the transformation of public administration, in the context of the e-government initiative. Several international organizations and some national and local governments<sup>4</sup> have elected this experience in their concept of best practices in e-government, in the government to business (G2B) classification<sup>5</sup>. Some of the innovations implemented by the government in using the System are the use of the e-reverse auction and the publishing of information of most of the phases of the tendering process. These characteristics have gained widespread acceptance in other levels of government and there are already over 15 of the 27

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<sup>2</sup> The net budget excludes mandatory transfers to states and municipalities and debt service.

<sup>3</sup> Data available to the public on the monthly statistical bulletins of the SIASG/Comprasnet.

<sup>4</sup> International organizations, such as WTO, United Nations, World Bank, and some Latin American and African national and local governments.

<sup>5</sup> Also see the Author's proposal on the Matrix of Relationships for Electronic Government Models, Tema Magazine, 2001

Brazilian State Governments, the main capital cities and some big municipalities using and/or implementing e-GP.

The Federal Government has three main objectives in promoting the use of the SIASG/Comprasnet:

- i) efficiency, by promotion of more streamlined acquisition processes and better planning in public spending;
- ii) control, by making available to the government authorities and operational personnel management information; and
- iii) transparency, by rendering on-line real time information for stakeholders outside government (suppliers and civil society).

As an added asset to the use of the SIASG/Comprasnet, Government has also discovered that it enhances supplier participation in each bidding process by having over 30% more suppliers participating on average than before the use of the system. Besides this, the number of SMEs available for government contracts tripled over the last decade and at present respond for at least 60% of the suppliers on the Registry. Therefore, even taking into consideration the liability of having to cope with the digital divide in Brazil, especially for SMEs, in paradox it has fomented their participation in contracting (they are now responsible for around 10% of the monetary value of goods and services procured).

### **EVOLUTION OF THE LEGAL FRAMEWORK FOR PROCUREMENT**

In the late 1960's the Federal Government of Brazil undertook a significant policy reform in the area of public management. A 1967 decree consolidated administrative reform and regulated the general legal framework that public entities would adopt in order to interact with the private sector (Decree-Law 200/67<sup>6</sup>). The 19 articles of this decree lay down the basic policy features of government procurement (GP), with the establishment of principles and procurement methods, but all particulars of bidding and contract documents (i.e. qualification requirements and types of contract) were dealt with in each invitation to

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<sup>6</sup> Which is considered the General Procurement Law, for the federal, state, municipal governments. The full text in Portuguese is available at <https://www.planalto.gov.br/>.

bid. In 1986, in response to public demand for more democratic institutions and clamors for transparency in public procurement and contracts, the Government issued a new procurement law that had a better structure and was based on sound legal doctrines (Decree-Law 2.300/86<sup>7</sup>). In 1993 the emergence of the issue of corruption as a dominant public concern caused the Government to pass new legislation regulating procurement (Law 8.666/93<sup>8</sup>). Reflecting that concern, the procedural requirements of the procurement process, as established by the 1993 law, were elaborate and difficult to modify through administrative action due to their statutory basis. The legislation, which is currently effective, is very detailed, as indicated by its many (125) articles on procurement, reflecting the legalistic traditions of the Brazilian public administration.

However, after thirteen years, experience has shown that this sophisticated process does not necessarily lead to the best choice of bids. The 1993 law gives more weight to formal rather than to substantive aspects. This specific course of action often causes protracted disputes, which are quite often taken to court. As a consequence, the Federal Government recognizes that on average 60% or more of federal public procurement is carried out through non-competitive methods, mainly in order to avoid the time-consuming bidding process<sup>9</sup>. To exemplify the plight of public organizations when using competitive bidding to acquire simple articles, such as office supplies, the whole process may take between three to six months, that is, if it isn't challenged by some unsatisfied participant taking the matters to justice. In the latter case the conclusion of the process becomes uncontrollable. In these cases, the procuring agency or entity will have little space but applying the several uncompetitive methods provided by the law. Strikingly, Article 24 of Law 8,666/93 allows for many departures (27 reasons) from truly competitive procedures. It is important to note, however, that the excessive use of direct contracting in Brazil, as exemplified above, is not necessarily linked to corrupt or fraudulent practices.

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<sup>7</sup> The full text in Portuguese is available at <https://www.planalto.gov.br/>.

<sup>8</sup> The full text in Portuguese is available at <https://www.planalto.gov.br/> and <http://www.COMPRASNET.gov.br/legislacao/leis/lei8666.pdf>.

<sup>9</sup> Data furnished by Secretary of Logistics and Information Technology of the Ministry of Planning, Budgeting, and Management ((SLTI/MP).

Notwithstanding the constraining environment imposed by the 1993 law, the Federal Government has experimented with potentially significant technological innovations, whose institutionalization and expansion have been occurring slowly but steadily. In this regard and in response to those challenges, the Government is moving towards e-government (e-Gov) and e-government procurement (e-GP). The new method, used in the purchase of off-the-shelf goods and non-complex services, is a reverse auction (RA) or *pregão* (Portuguese denomination). In the RA (established by Law 10.520, dated July 17, 2002<sup>10</sup>), following the appropriate advertisement of the bidding opportunity, bidders submit an initial price proposal in a sealed envelope. During a public session that is fully recorded, bidders are encouraged to offer discounts until the lowest possible price is reached. In this method, qualification requirements<sup>11</sup> are assessed on an ex-post basis. The Government also developed an Internet-based system to implement the electronic version of the reverse auction (e-RA), which can be accessed through COMPRASNET ([www.comprasnet.gov.br](http://www.comprasnet.gov.br)), which is the web platform for e-GP of the Federal Government. Since its inception in 2001, the use of the reverse auction has reduced the number of contracts awarded through non-competitive methods by more than 20%.

The use of e-GP, in which the e-RA is a central instrument to promote efficient and transparent procurement methods, is part of the overall Brazilian e-Government strategy of enabling social inclusion, through digital inclusion and, with that permit the citizen exacts his/her rights in the form of social control. Therefore, It's important to emphasize that e-GP is part of the e-Government strategy also related to e-Democracy in Brazil. Other examples of this are the recent creation of the Public Transparency website with the control of public spending ([www.portaltransparencia.gov.br](http://www.portaltransparencia.gov.br)), the access to the most critical services of the general Ombudsman of the Federal Government

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<sup>10</sup> The full text in Portuguese is available at <https://www.planalto.gov.br/> and <http://www.COMPRASNET.gov.br/legislacao/leis/lei8666.pdf>.

<sup>11</sup> The qualification requirements are related to compliance of the winning bidder to the payment of taxes and levies of the Federal and State Governments and the legal, economic and financial information of the company. The bidders are waived from presenting the compliance documents in paper that are available in the Unified Registry System (Sistema de Cadastramento Unificado de Fornecedores – SICAF) and similar systems maintained by the States and the Federal District or municipalities.

([www.presidencia.gov.br/cgu](http://www.presidencia.gov.br/cgu)), as well as the well known on-line tax system called Receitanet ([www.receita.fazenda.gov.br](http://www.receita.fazenda.gov.br)). On the other side, the Government has also invested heavily on providing on-line social services, such as social security and medical assistance by portals such as [www.mpas.gov.br](http://www.mpas.gov.br) and [www.comprasnet.gov.br/PortalMed/principal/default.asp](http://www.comprasnet.gov.br/PortalMed/principal/default.asp)). To enable a one-stop window to all services rendered by the Government and a comprehensive overview of the strategy the Administration centralized all links to the Government Network Portal and the e-Government web site, respectively accessible through [www.e.gov.br](http://www.e.gov.br) and [www.governoeletronico.e.gov.br/governoeletronico/index.html](http://www.governoeletronico.e.gov.br/governoeletronico/index.html).

It has been unanimously agreed that the successful implementation of this new procurement method may be credited to the following basic factors: (i) it gives more weight to ensuring transparency, economy and efficiency, but it does not disregard formal requirements, which are kept to the minimum necessary; (ii) it opts for post-qualification of bidders, which leaves little room for frivolous complaints, since the price is known before a decision on the respective qualification is made; and (iii) the pregoeiros (the only public servants able to conduct the reverse auction sessions) are selected from professionals who have been accredited after having received specific intensive training.

The Government has also been putting a lot of effort into increasing transparency and improving the supervision of Government procurement by making use of e-GP mechanisms, such as COMPRASNET and OBRASNET, both of which are ITC systems that generate managerial information. The latter includes a database of costs, progress reports of works, photography, and material regarding civil works implemented by the Federal Government, based on information available from the National Court of Accounts (TCU) and the Government Housing Development Bank (CAIXA). Remarkably enough, as far as e-GP is concerned, Brazil has played a leading role in its implementation in the Region, and supported the exchange of information, visits, and agreements that have been made possible with countries such as Bolivia, Nicaragua, Guatemala, Colombia, and Peru, to promote familiarity with e-GP in the Region.

### **BACKGROUND ON CREATION OF REVERSE AUCTION**

The RA was introduced into the Brazilian framework first by means of the General Telecommunications Law (Law 9.472/97, dated July 16, 1997), which granted the possibility of the Regulatory Agency of the telecommunications sector (Agência Nacional de Telecomunicações – ANATEL) the right to use the modality if more advantageous to the administration. During the next 3 years ANATEL was the sole public entity of the Brazilian Federal Government allowed to use the RA.

In 2000, the Federal Government was in the midst drawing up the PPA<sup>12</sup> for the 2001/2003 period. One of the management improvement programs set up in the Government investment plan was to “reduce costs in the acquisition of goods, services and civil works”. Amongst the lines of action adopted was the study of the impacts of ANATEL’s experience with reverse auction, as well as the designing of an implementation plan to extend it to the rest of the public administration (including states and municipalities besides the federal administration).

The initial benefits derived from using the RA were quite clear, i.e. price reductions in the procurement of goods and services<sup>13</sup>. Even though ANATEL had the right to use the modality, not many reverse auctions had been conducted by the Agency. The reasons for the low usage rate may be enumerated as the:

- a) lack of a “guide to enactment” and need to train the procurement staff in the use of a new procurement tool;
- b) resistance on the part of the administration in using something so far apart from the traditional method;
- c) non-bidding use of the RA, which is just another modality available for procurement; and
- d) lack of definition of the goods and services that could be procured under the RA.

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<sup>12</sup> The PPA (Plano Plurianual) is the multi-annual invest budget (governing public investment priorities for 4 years, starting on the second year of the Administration and ending the first year of the next)

<sup>13</sup> There are several other benefits, such as reduced transaction costs, speedier bidding processes and more transparency that are explored further on in the chapter.

From the studies conducted the proposal for creating the RA were consolidated into the proposal of the Medida Provisória (Provisional Measure<sup>14</sup>) 2.182, dated August 23, 2001<sup>15</sup>.

Even though at first the objective of the Government wasn't to go directly into e-RA, the Government decided to do so in one of the re-editions of the Provisional Measure, placing the target of having a functional information technology system tested and operating by the end of the year 2000<sup>16</sup>. Another important point to make is that the Brazilian legislator, in following the tradition of the administrative law practice, as well as the model adopted by Law 8.666/93, brought a substantive amount of the procedures into the law itself and linked these with those stated in the General Procurement Law (Law 8.666/93). The regulation of the RA was limited therefore to Decrees 3.555 and 3.693<sup>17</sup>, which established amongst other matters, an annex with the goods and services eligible for procurement through RAs.

## THE REVERSE AUCTION

A RA is a tendering procedure for the procurement of goods and services in which tenderers are provided with information on the other tenders, and can amend their own tenders on an on-going basis to beat

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<sup>14</sup> At present, the Provisional Measure in the Brazilian legislative framework is equivalent to a Law, which is enacted by the President of the Republic and has to be appreciated and validated by the National Congress in up to 120 days; otherwise it loses its validity. At the time of editing the Provisional Measure of the RA, such instrument was valid for 30 days and the Executive Branch could reedit up to the moment of validation or rejection by the Congress.

<sup>15</sup> Later validated as Law 10520/2002, which enabled the states, the Federal District and the municipalities as well as the public organizations they maintained. The full text in Portuguese is available at <https://www.presidencia.gov.br/>.

<sup>16</sup> The Ministry of Planning, Budget and Management (MP) on December 29, 2000 did the first e-RA, for the acquisition of 4 automobiles for the Ministry's transport services.

<sup>17</sup> Decrees 3.555 and 3.693, respectively dated August 8 and December 20, 2000, established the list of goods and services eligible for procurement through RA. The later included information technology desktop equipment as part of the standardized goods. Decree 3.697, dated December 21, 2000 established the possibility of using Information technology in the RA process, thus creating the e-RA.

other tenders. In an e-RA tenderers then post tenders electronically through an electronic auction site. They can view in electronic form the progress of the tenders as the auction proceeds and amend their own accordingly. The auction may take place over a set time period, or may operate until a specified time period has elapsed without a new tender.

Auctions offer potential for better value for money, if used in an appropriate manner<sup>18</sup>. This is because of, inter alia, increased pressure on suppliers to offer their best possible price; more transparency in the markets (especially important in the short and medium term); and the incentive they provide towards more careful procurement practices, such as more precise specifications of non-price award criteria and greater aggregation of requirements. They can also be more transparent than other procurement methods. In particular, to the extent that information on other tenders is available and the outcome of the procedure visible to the participants, there is reduced scope for favoring suppliers by violating confidentiality of the tenders or abusing discretion in tender evaluation. Auctions can also speed up the tendering process and reduce transaction costs. Electronic technologies have facilitated the use of the reverse auction by greatly reducing the transaction costs. However, there are also potential problems, such as encouraging an excessive focus on price, and encouraging suppliers to submit unrealistic prices.

When analyzing the impact of the transition costs, one faces with very little research conducted in this field. One of the most comprehensive studies conducted in Brazil was done in 2004, by Florência Ferrer<sup>19</sup>, in which empirically she added all the inputs involved in the traditional process, i.e., number of people working in the specific tender, electricity consumed, postage, paper consumed etc. and compared with the electronic process. The study does not consider the fixed asset cost, initial investments or maintenance costs of the e-GP system, nor

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<sup>18</sup> The tendency experienced by Governments in Brazil and other countries that have implemented the auction formula is to try to stretch its use to incorporate non-commodities in which other procurement methods are more adequate. If such practices are not curbed on the outset governments may drive away or even bankrupt potential good suppliers, thus reduce competition, which is the main goal of the auction.

<sup>19</sup> For more details on the Study, see Florencia Ferrer. Bolsa Eletrônica de Compras do Estado de São Paulo – FAPESP, at <http://www.cqgp.sp.gov.br/downloads/FERRER.BEC.RESUMO.pdf>.

does it consider depreciation of the equipment<sup>20</sup>. Even with such drawbacks, the said study demonstrated that the transaction cost of the e-RA was around only 8% to 15% of the traditional method according to the item being tendered.

RAs are commonly used for standardized products and services for which price is the only, or at least, a key award criterion, since it is generally price alone that features in the auction phase, or evaluated in the “auction” process. However, other criteria can be used; these can be built in to the auction phase, or evaluated in a separate phase in the overall procedure.

It is useful to distinguish, for regulatory purposes, three models, all of which to some extent is practiced by agencies and bodies subject to procurement laws:

a) Assessment limited to aspects tendered through the auction

Under this model all aspects of tenders that are to be compared in selecting the winning supplier are submitted through the auction itself. Lowest price is the sole award criterion in competitions conducted entirely through an auction. Under this model suppliers can see during the auction how they stand in relation to other tenderers, and when the auction finishes know from this information whether or not they have won the contract.

b) Procedure with prior assessment of aspects submitted outside the auction phase

A contract could also be awarded on the basis of both criteria that are subject to competition in the auction phase, and other criteria (such as product quality) assessed prior to the auction. Before the auction phase the aspects of the tender that are not to be submitted in the auction phase are evaluated and converted into a price-equivalent. During the auction phase suppliers are provided with information on their position that takes into account all aspects of other tenders, including those assessed prior to the auction.

c) Procedure without prior assessment of aspects submitted outside the auction phase

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<sup>20</sup> Public account in Brazil does not incorporate depreciation.

Auctions are also sometimes used<sup>21</sup> in a procedure that considers both criteria subject to competition in the auction phase, and other criteria, but without suppliers receiving any information on how the “non-auction” criteria affect the result of the auction. During the auction phase suppliers have information only on how they compare with their competitors in respect of those criteria that are subject to the auction process (usually just the price). Thus, when the auction closes the suppliers do not know whose is the best tender; this is established once the “non-auction” aspects of the tender have been factored in. From a value for money perspective, the absence of full information means that the auction phase does not generate the same pressure to improve tenders during the auction.

E-RAs, especially of the first two models, are increasingly being used by public organizations. For example, they have been used in the United Kingdom, by a wide variety of purchasers<sup>22</sup>, in the United States<sup>23</sup> and by some entities in Singapore. The Federal Government, states and municipalities, as mentioned above have also used them in Brazil.

The decision on which model is best suited to the needs of the procurement system and the agency(ies) involved with the process, should consider the complexities of the goods and services to be procured. As stated before, the third model should be avoided due to the introduction of non-objective evaluation criteria that subverts the main purpose of the e-RA, which is transparency and cost efficiency. Because the Government decided not to run risks in the beginning, which could discredit the use of e-RA in Brazil, the Brazilian system is based on the first model.

### **BREAKING THE RESISTANCE IN REVERSE AUCTION**

In the more than 4 years that Brazil has been using the RA (including the electronic version), the modality, even though not mandatory, has

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<sup>21</sup> For example, this type of auction is frequently used by some utilities in the UK that are subject to the EU Utilities Directive.

<sup>22</sup> Some examples are found in the OGC publication “eProcurement: Cutting through the hype” at <http://www.ogc.gov.uk/index/asp?id=2314>, Annex A.

<sup>23</sup> See Yukins, “Reform of the UNCITRAL Model Procurement Law: A Report on Experience in the U.S. Procurement System” (2003).

grown from a few processes done in 2000<sup>24</sup> to up to over 25% of the total procurement done by the Federal Government's Direct Administration, foundations and agencies last year and a projected growth of another 5 percentage points this year<sup>25</sup>. The total amount of goods and services procured by the over 200 organizations involved in the aforementioned universe averages around BRL 13,0 to BRL 15,0 billion (thirteen to fifteen billion Reais), i.e. USD 6.0 billion (six billion US Dollars)<sup>26</sup>. The RA, including the electronic version, accounts for approximately BRL 3,5 to BRL 4,0 billion (three billion five hundred million to four billion Reais), which is equivalent to USD 1.6 billion (one billion six hundred million US Dollars). In the case of the e-RA, the absolute amounts aren't so spectacular, but the modality has achieved consistent growth over the live RA. In 2001 there were just a handful of e-reverse auctions. The modality was responsible for 3.2 % of the auctions in 2002 and grew to and 12 % in 2003<sup>27</sup>. Around 30 % are to be procured by e-RA this year.

One of the reasons for the slow start of the e-RA is the cultural resistance to change, quite natural in a legalistic environment, like the Brazilian public administration<sup>28</sup>. Seeing that the modus operandi of the procurement process not only does not favor innovation but also cracks down on initiatives for innovation<sup>29</sup>, procurement staff was very resistant to departing from well-known and more objective evaluation methods. In their view, subjectivity was created by the introduction of the auction phase. The first step in the strategy to overcome resistance was to create

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<sup>24</sup> The first e-RA was done on December 29, 2000, to meet a target established by President Cardoso. On that occasion, the MP bought 4 automobiles with over 30% of price reduction over the initially offered lowest bids.

<sup>25</sup> The target set on the PPA 2000/2003 was to increase the use of the reverse auction to 40% of total amount of goods and services procured by the Federal Administration.

<sup>26</sup> In United States Dollar values the amount has varied substantially, due to the exchange rate with the Brazilian Real (BRL), which was over BRL 3,00 x USD 1.00, during 2002/2003, and dropped to around BRL 2,50 x USD 1.00 during 2004/2005.

<sup>27</sup> These are percentages over the total volume of goods and services procured by the Federal Government.

<sup>28</sup> In the Brazilian administrative code framework, one may do what is expressly stated in the legislation, contrary to the civil code framework, in which one may do which is not expressly forbidden in the legislation.

<sup>29</sup> Related to the criminal penalties chapter of Law 8.666.

the post of the “reverse auctioneer”<sup>30</sup>. The idea was to capacitate a public servant, who had an adequate profile<sup>31</sup> in the areas negotiation techniques, group work and leadership, so as to be able to conduct the reverse auction process. An interesting unforeseen resistance group, which voices opposition up to the present, is those that believe that a discretionary power has been given to the reverse auctioneer<sup>32</sup>. It is interesting to note that even though to the general public this could be perceived as an added advantage by reducing the cost of buying goods and services, in the eyes of the public servant, that has to abide to strict conduct rules, with little space for initiative and creativity, the discretionary power was thought to subvert the public service conduct rule.<sup>33</sup> To counter such the legislation is very detailed and limits the space for discretion in the evaluation procedures. In the first 2 years of the reverse auction almost 3,000 procurement staff were trained in the art of RA<sup>34</sup>. That accounts for around 10% of the workforce dedicated to procurement in the Federal Government.

The other step was to create manuals and an on-line simulator for different users of the RA and e-RA<sup>35</sup>. These are not limited to the internal users in the Government but also to potential suppliers and even the general public. Based on the materials generated by the Government, a series of private entities became interested in the reverse auction and created parallel training programs for suppliers and state and municipal governments. To counter the commercialization of the training process for public sector ENAP trained multipliers of the basic course and commissioned the state’s public administration schools to give the courses.

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<sup>30</sup> Pregoeiro is the Portuguese term for reverse auctioneer.

<sup>31</sup> The profile sought was of initiative, creativity, flexibility, integrity and good notions of fare play.

<sup>32</sup> The power to be able to negotiate price reductions if the outcome of the auction phase still results in prices higher than expected and budgeted.

<sup>33</sup> Experience has demonstrated that adequately controlled the discretionary power and the strict public service rules work quite well together.

<sup>34</sup> The National School of Public Administration (Escola Nacional de Administração Pública) – ENAP designed and administers a standard 40-hour course for reverse auctioneers, as well as more specific disciplines.

<sup>35</sup> For download of these see <http://www.comprasnet.gov.br/>.

Besides having all the manuals and orientations, as well as the normative framework published in the Official Journal<sup>36</sup>, the same is available on the COMPRASNET website, which is linked to most Federal Government portals and web pages.

### **ABOUT ELECTRONIC REVERSE AUCTIONS (E-RA)**

#### **A. ELECTRONIC REVERSE AUCTION IN PRACTICE – COMMON AND DISTINCTIVE REGULATORY FEATURES**

Before going through the steps of the e-RA, it's important to distinguish that the SIASG/Comprasnet, as will be detailed later on in the chapter is the environment<sup>37</sup> in which e-RAs are done. Besides being the platform for e-RA, the System also enables the information flow of the traditional procurement methods and even newer, but still in pilot stage methods, such as the electronic quotation.<sup>38</sup> The following are the main features and phases of the e-RA done on the SIASG/Comprasnet.

##### **1) Pre-Qualification Requirements**

###### **Registration as a Federal Government Supplier**

First of all, anybody interested in supplying to the federal government has to register on a central suppliers registry, called the SICAF<sup>39</sup>. SICAF was established by an internal orientation of the Ministry of Federal Administration and State Reform – MARE<sup>40</sup> (superseded by the Ministry of Planning, Budget and Management), which supervises the procurement function across the federal public

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<sup>36</sup> Diário Oficial da União – DOU.

<sup>37</sup> The official technological classification of the SIASG/Comprasnet is the platform on which the e-RA, as an IT application is operated.

<sup>38</sup> The electronic quotation is a simple method, following the general process of the e-RA, but without the auction phase, and suited as a substitute for small volume direct contracting.

<sup>39</sup> Sistema de Cadastro de Fornecedores – SICAF, is the unified registry system of the Federal Government.

<sup>40</sup> Before MARE, the procurement function was supervised by the Secretary of Federal Administration of the Presidency of the Republic, which had the status of Ministry.

organizations of the Direct Administration, foundations and agencies<sup>41</sup>. The problem is that the National Accounts Court – TCU<sup>42</sup> has ruled that the normalization of the SICAF is inadequate and the Ministry is in the process of changing the mandatory to a voluntary registration on the SICAF, in which case the services rendered to the supplier would be a differential in relation to those not registered. The draft of a Decree to do so has already circulated inside the Ministry but has not been edited yet.

When registering on-line (the supplier may also come to one of the more than 2,000 procurement offices across the Country to register<sup>43</sup>), the supplier will fill a form in which the following information is required:

- Statutory information of the firm or professional (when individual);
- Financial information, such as the statements of the last 3 years;
- Information on the obligations with the government (federal, state and municipal, if included by agreement), i.e., taxes, levies, social security contributions, labor obligations etc.
- Data on the supplier's products and/or services;
- Areas of the Country in which the supplier works;
- The types of procurement opportunities the supplier is interested in.

Once registered on the SICAF<sup>44</sup>, the supplier will receive automatically generated e-mails with basic information on the procurement opportunities it is interested in. The procurement opportunities generated by the system aren't limited to RA or e-RA.

## 2) Registering for a Specific E-Reverse Auction

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<sup>41</sup> Decree 1.094, dated March 23, 1994, established the need to have a unified registry. And Portaria 5/95, of MARE created the SICAF, administered by SLIT/MP.

<sup>42</sup> Tribunal de Contas da União.

<sup>43</sup> These are called UASGs (Unidades de Serviços Gerais), which are responsible for administering procurement for the Federal entities. Depending on the size and decentralization of the organization an entity may have many UASGs.

<sup>44</sup> There are over 210 thousand suppliers on the registry, in which an average of 2/3 are active every year, i.e., participating in at least one procurement process.

Once the supplier has decided on participating in an e-RA, the next step is to register on the specific process and prepare the bid. Legislation<sup>45</sup> obligates the bid (in all modalities) to be composed of fiscal qualification documentation (in one envelope), technical specifications, when necessary (in a separate envelope) and price (in a third envelope). E-RA dispenses with the need to present the technical specifications, seeing that the goods and services eligible to procurement by this method are so-called commodities<sup>46</sup>. Seeing that the supplier is also registered on the SICAF, it is also waved the presentation of the qualification documents, once the winner will have its checked on the SICAF<sup>47</sup>. This is one of the biggest departures from the other procurement modalities, in which the first step is to check and disqualify any supplier no compliant to the qualification criteria. Therefore, the supplier only has to up-load the price for each item of its bid, before the stated time to open the RA.

### 3) Publication of Upcoming E-Reverse Auctions

E-RAs, like all procurement opportunities over BRL 8.900,00 (eight thousand nine hundred Reais), equivalent to USD 3,500.00 (three thousand five hundred US Dollars), have to be published. Unlike the other modalities, the e-RA may be published only on the COMPRASNET website<sup>48</sup>.

One may question if the limiting of the publishing of e-RAs only on the COMPRASNET web site would render transparency. In this case the answer is simply yes, due to the fact that all suppliers eligible to do business with the Government has to first register on the SICAF to be able to participate. Therefore, the web site is the natural point of contact between public contractors and suppliers. Added to this, it reduces the price of doing business not only for suppliers that have to buy and research several journals and newspapers daily to actively maintain their

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<sup>45</sup> Law 8.666, combined with Law 10.520, and regulations.

<sup>46</sup> Off the shelf, with quality standards established by the market, and in which price is the only differential.

<sup>47</sup> Decree 3.555, disobliges the procurement entity to require paper evidence of the fiscal qualification.

<sup>48</sup> As established by Decree 3.555. Also values below the threshold are published on the COMPRASNET website.

search for public sector business, but also for the Government, that does have to pay for expensive bidding advertisements in national papers<sup>49</sup>.

#### 4) Time Frame for Procurement Conducted by the Electronic Means

The publicity period of the other procurement methods varies according to the value thresholds. These range from 30 to 60 days. If taken into consideration the time span for preparation of the process, which is usually very bureaucratic, the evaluation period and possible suspensions in the process due to complaints filed, the process may range up to 6 months. On average tenders take around 4 months to be adjudicated.

The RA and the e-RA, due to simplicity have a publicity period of as little as 15 and 8 working days respectively<sup>50</sup> and most are adjudicated inside 20 working days.

#### 5) Regulation of the Procedure and Evaluation Criteria

The regulation of the procedure and the evaluation criteria are established in Law 10.520 and Decree 3.555 that are also subordinated to the General Procurement Law 8.666, with the amendments, in the dispositions that don't conflict. In the case of conflicting interpretation, Law 10.520 dispositions prevail.

#### 6) International Bidding Promoted by the Publication of Relevant Documents other than in a Local Language

In the case of Brazil, which is a Country with a very diversified economy, whose suppliers are capable of providing goods and services in sufficient quantity and quality for the public sector, the volume of international bidding in general is very limited. Even though the general procurement law has provisions for the use of international bidding, in the last 3 years the amount procured through international competitive bidding fell from around 3% of the total volume to less than 1% in 2003 and this year the trend seems to be the same.

The e-RA, as foreseen by the RA law, also provides for international bidding if more advantageous for the administration. But up to present there haven't been any e-reverse auctions done with the participation of

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<sup>49</sup> The cost of publishing fell from around USD 500 thousand yearly paid by SLTI for all Federal direct administrations procurement announcement, to little under US\$ 30 thousand, on the first year of enforcement of Decree 3.555.

<sup>50</sup> Though longer periods may be established by the bidding documents.

international suppliers. Brazilian suppliers, including constituted branches of multinational companies, relate the contributing factors for this scenario to the language barrier, once the law specifies that the official language is Portuguese. Besides this, goods and services eligible for electronic reverse auction are readily available in sufficient amount and diversity on the local market.

An interesting experiment is being set up between the Brazilian Government and the multilateral banks (World Bank and IADB), in which the idea is to extend the use of RA and the e-RA, under the SIASG/Comprasnet platform to funding made available under the loans made by these Banks. The differences are in the establishment of thresholds and the limitation to only goods<sup>51</sup>.

#### 7) Restrictions Placed in the System on the Type of Procurement that can be Operated Under the Procedure and Possibility of Amendments

The restrictions placed on the use of e-RA are the limited number of goods and services eligible for procurement under this modality. Decree 3.555 establishes the list of around 74 goods and services that meet the criteria of goods and services<sup>52</sup>. Being a Presidential Decree the list is limited to the procurement conducted by Federal entities. States and municipalities may establish their own regulations as to what attends to the classification under the law.

Seeing that the restrictions placed are dealt with under executive order, the possibilities for amendments are easier to be achieved. The Federal Government is at present, considering that the idea of the list as having achieved the initial purpose of serving as a guideline to the delimitation as to what goods and services may be classified as commodities. The problem at present is that in the modern economy, new commodities are always appearing and the need to periodically change the list may be cumbersome and not bring the desired flexibility (one example is with the incorporation of generic medical supplies for the Unified Health System – SUS<sup>53</sup>) to the efficiency of the reverse auction and electronic reverse auction. In this sense, the Ministry of

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<sup>51</sup> Under the Banks guidelines on procurement services fall under the 2 envelope (technical and price) criteria

<sup>52</sup> For the full list see the annex of Decree 3.784, dated April 6, 2001, that included new services to the Decrees 3.555 and 3.693.

<sup>53</sup> Which were made eligible by an amendment to Law 10.520, with the incorporation of article 2-A.

Planning, Budget and Management has drafted a new decree to substitute the list for the definition of eligibility on the premise that the concept is well known by now.

8) Other Restrictions Found, such as (but not limited to) the Size of The Procurement, the Level of Detail in the Relevant Specification or other Descriptive Document that must be provided, and the Variables that can be Bid

In principle, there aren't restrictions other than those provided by the Decree 3.555 and amendments, once the idea is to increase competition under the e-RA, by facilitating the participation of potential suppliers. Therefore, under the dispositions of the e-RA restrictions placed related to terms of delivery and other more subjective criteria aren't admissible. If the bidding documents state such criteria, suppliers may file complaints.

But, restrictions are placed on wide spread participation if taken into consideration that only the suppliers registered on the SICAF, as well as, the criteria placed by Law 8.666 on the participants' eligibility. Other restrictions may be placed on the need to attend to commercial and quality specifications.

9) Suspension Procedures

Suspensions of the e-RAs are permitted when there are communications problems between procuring entity and bidders. Article 11 of Decree 3.697, established that in the event that there is a systems or communications failure during the competitive phase of the auction the auctioneer resumes the RA as early as possible, without prejudice to the process done before the failure. When the connection is interrupted for more than ten minutes, the auction session is suspended and only resumes after participants receive communication to that effect<sup>54</sup>. Another case for suspension may be by restraining Court order, in which case the reopening of the session depends on a new judicial decision. Temporary suspensions may also be requested by and granted by the reverse auctioneer to give time to bidders to rethink bids or to better their offered bids.

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<sup>54</sup> In this case the reverse auctioneer establishes new date and time to reopen the session and communicates this by posting on the COMPRASNET website.

The suspension is always published on the COMPRASNET website<sup>55</sup>, so as to be transparent on the time span and the related motives.

#### 10) Publishing of Results of Electronic Reverse Auction and its Procedures

All the proceedings of the e-RA are published on the COMPRASNET website. These include; (i) the name and detailed information on the bidders and the procuring organization; (ii) the items object of the procurement the budgeted unit price for each; the initial price proposal of all bids; (iii) the initial and closing time of the reverse auction session and eventual suspensions; (iv) all decisions taken by the reverse auctioneer; (v) the communications exchanged between bidders and the reverse auctioneer<sup>56</sup> in the “chat”<sup>57</sup>; (vi) the complaints files, if any, and decisions taken on them; (vii) clarifications requested and given; and (viii) the complete information on the adjudication procedure and any procedure that would be dealt with in the real world, such as the testing of samples etc. All this information (automatically generated by the system), in the form an aid memoir of the proceedings, is electronically signed by the reverse auctioneer and assistants, and is published on the website at the end of the session. An extract is also generated and automatically sent to the Official Journal for publication the next day. The Official Journal publishes in paper and on the Journal’s virtual edition. Usually the procuring organization also publishes extract of the results on its website too.

### B. ABOUT COMPRASNET AS THE FRAMEWORK WHERE E-RA TAKES PLACE

#### COMPRASNET – AN OVERVIEW

The SIASG/Comprasnet is the sole information system for cycle of the procurement process of the direct administration, including

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<sup>55</sup> It comes out on the Aid Memoirs of the Session.

<sup>56</sup> Not amongst themselves, because there isn’t any communications between bidders.

<sup>57</sup> In the experiment with the multilateral banks, one of the issues raised was the possibility of suppliers using the chat to set up prices. Therefore they requested SLIT/MP to disabilitate that function on e-RAs conducted with their funding.

foundations and autonomous agencies<sup>58</sup>, as well as, the public companies that receive funding from the federal budget or have voluntarily adopted the system. The greater part of the procurement cycle that may be divided in: (i) specification and funding arrangements; (ii) tendering/bidding documents preparations (iii) giving notice and inviting suppliers; (iv) submittal of proposals and evaluation; (v) awards and contract management and execution; and (vi) post execution controls and evaluation.

### CHARACTERISTICS OF THE SIASG/COMPRASNET

#### 1) Application

This is an e-GP system, set up by the Secretariat of Logistics and Information Technology in the Brazilian Ministry of Planning, Budget and Management (SLTI/MP). The system is a Web-based on-line procurement system used by all the more than two thousand Federal Government procurement units. It enables on-line price quoting and RA commodity purchases. It has a client/server architecture, resident on secure 32-bit Pentium III Xeon corporate servers. The operating system is Windows 2000 Advanced Server. Three Unisys Aquanta STD Web application servers support the front end. The solution software used is the Vesta Business Services Suite<sup>59</sup>. Under the Brazilian to free software development, the property softwares are now being phased out and SERPRO is implementing open code solutions to the platform.

#### 2) Application Description

SIASG/Comprasnet is the system where Federal Government organizations register their procurement needs (i.e. goods and services they need to buy). The system automatically informs registered suppliers<sup>60</sup> by e-mail and the supplier may download the bidding

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<sup>58</sup> The agencies and entities of the direct administration may advertise procurement opportunities or contract awards in the official journal (DOU), but the management of information as well as the procurement process itself is undertaken through the system.

<sup>59</sup> Developed during the phase of the public/private partnership established between SERPRO (a Federal IT Company) and Unisys and Vesta IT private companies, selected by a national bidding contest. Since then the contracted was terminated in 2003 and all the development and operation has been reassumed by SERPRO.

<sup>60</sup> To become a government supplier of goods, services and civil works of companies and individuals have to pre-register in the SICAF (described below). The registration is quite simple and may be done wholly through the Internet or at

documents. The procurement officer uses a Federal Catalogue<sup>61</sup> to specify the description of the good or service required. If the item is classified as a commodity, the whole process may be done through the Internet, using the price quoting system (which is a two- to three-day purchase posting site for non-competitive small purchases). For larger procurement of general-purpose goods and services (such as building maintenance services or office supplies and equipment), a RA procedure is used. In the RA the bids (prices the suppliers will charge for that item) are submitted on the Web. Each supplier reduces their bid price competitively with others during the auction and the one offering the lowest price at a pre-agreed end time for the auction will be the one awarded the contract. Auctions and prices are open for inspection by the public, and auction results are posted immediately.

### 3) Application Purpose

SIASG/Comprasnet was introduced to automate the procurement process. The aim of automation is to render the procurement process uniform without centralizing the buying process of the Federal organizations. It was also intended to reduce procurement costs and give more transparency to the process. Other aims were to increase the number of government suppliers; to reduce participation costs for these suppliers; and to increase competition among suppliers, which should also bring about cost reductions and better quality of goods and services acquired.

### 4) Stakeholders

Federal Government agencies and organizations, as well as the suppliers of goods and services to the Federal Government (there are over 210,000 registered suppliers) are the main affected parties. Citizens and society are affected in the sense that e-GP is intended to provide an instrument for social control of public expenditure, through its public transparency.

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one of the 2,100 UASGs through out the Country. The main requirements are to present fiscal, social security compliance and related documentation, as well as demonstrate legal constitution and present yearly statements.

<sup>61</sup> Based on the Federal Supply Classification adopted by NATO.

### **ISSUES TO BE ADDRESSED TO ACCOMMODATE ELECTRONIC COMMERCE**

From the Brazilian experience with e-RA some considerations should be taken into consideration in defining the best approach and strategy to addressing e-RAs. In the first place, even though the e-RA is a form of electronic commerce, the GP aspects of the process, which are more relevant, set it aside from the general electronic commerce and need to be treated specifically in a separate legal framework. Secondly, national legislation on GP usually deals with the traditional aspects of the procurement process and in principal would be the right field to deal with e-RA. But one has to take into account the environment in which e-RAs are conducted (electronic medium versus paper based medium); the main difference is in the reengineering of the process. Therefore, a review of the national legislation would be warranted to take into account the specificities of the process of the RA.

Another important point to make, in the case of the Brazilian model, is that even though the RA and e-RA was established through new legislation, both are, in reality, a set of rules to deal with a phase of the bidding process and the administrative process before and after the RA and e-RA phase remains substantially the same.

Resistance to the implementation of e-RA may only be countered by the availability of precise information on the advantages and disadvantages of its use, and procedures to be followed in using the modality, as well as a comprehensive and extensive capacity building program, not only for public servants but also for suppliers. In this case the guide to enactment of the national legislation is an important and powerful instrument to disseminating the best practices in the field of e-RAs.

Finally, e-RAs should not be treated as a panacea to the solving of the other matters and problems that appear in the field of GP and should be kept simple and restricted in the number of cases in which it may be used to be effective and not to make it a means to enhance low-balling in government acquisition of goods and services.

### **CHALLENGES OF IMPLEMENTING E-GP IN DEVELOPING COUNTRIES**

An important issue that needs to be addressed in economies with low communications and/or Internet penetration is the digital divide, especially in relation to potential suppliers so as to not limit competition. The main issues to be taken into account when formulating an e-GP strategy (as has been demonstrated in the case of Brazil):

- concentration of telecommunications infrastructure only in large urban areas, thus limiting possibilities for interested suppliers in small towns and in the countryside;
- high local connection, Internet Service Provision (ISP) and long distance tariff costs;
- low quality of connectivity; and
- Digital illiteracy, lack of familiarity with procurement processes and trust equality of the treatment in the virtual environment (which is the paradox of any new technology).

Coupled with the above, the investments necessary to enable the migration, with transparency and efficiency of part of the procurement needs of the government to the virtual world have to be lead by the public sector (or by direct investment, or financial backing and incentives, or by generating an enabling framework for private sector investment, or even a combination of all of the aforementioned). The Authorities perceive this as being less of a priority than other public policies, such as, health, education, poverty reduction and others.

In the case of Brazil the issues enunciated above were tackled in the following manner, the telecommunications infrastructure, which was state owned and did not meet universalizing criteria, had a broad framework rearrangement and was privatized. Granting licenses to shadow telecom companies instated the competition environment. A flat rate for ISP is under study by the government (to deal with long distance tariffs). To facilitate the participation of small and medium enterprises in public procurement as well as creating incentives for e-commerce the Ministry of Development, Industry and International Trade has installed specific SME oriented public telecenters<sup>62</sup>. There are presently 156 cities

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<sup>62</sup> See <http://www.telecentros.desenvolvimento.gov.br> for the details of the Programme.

attended by the Information and Business Telecenter and the goal is to attend to all the more than 5.600 municipalities until 2007.

On the other hand, as research undertaken in Brazil and abroad have demonstrated e-GP<sup>63</sup>, as part of the overall G2B strategy, is a powerful instrument to fomenting the e-commerce in a broader sense. As well as this macro-objective, if coupled with active policies for promotion of SMEs, e-GP may be the first steps towards the building of the bridge to cement the path of the digital inclusion, i.e., by creating a market place for developing e-commerce.

It is important to state that the objectives of the reforms stated above are of broader scope than to have a healthy GP environment. But, on the bottom line, they have contributed immensely to the implementation of e-GP.

### **CONCLUSIONS ON IMPACTS OF THE RA AND e-RA**

a) Role of the Electronic Reverse Auction in diminishing collusion on procurement

As an e-government<sup>64</sup> system, the SIASG/Comprasnet has been designed to meet three main objectives:

- To broaden participation in GP;
- To speed up the procurement process and make it more efficient by expanding supply and demand;
- To provide transparency to GP by reviewing established procedures and public information, and by developing an easy auditing system.

The system is coordinated by the SLTI/MP<sup>65</sup>, which delegates the operation, maintenance and development to the federal information

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<sup>63</sup> 68 % of the Federal Government suppliers, active on the SICAF registry, in 2003, are liberal professionals and SMEs, an increase of 3 % over the 1997 figure.

<sup>64</sup> For more information access the Brazilian Electronic Government home page at: <http://www.governoeletronico.e.gov.br>.

<sup>65</sup> SLTI/MP plays the functions and develops rules for public procurement. Within the SLTI – staffed with 50 government officials in the area of procurement, the DLSG plays an important role in developing procurement systems and regulations. The Secretariat is the second layer of the Government hierarchy; the Department is in the third layer.

technology company SERPRO<sup>66</sup>. SIASG/Comprasnet aims at benefiting three main stakeholders of GP. First, there is the public at large, which demands easy access to reliable information on public procurement. Secondly, the government purchasers that need a more efficient, faster and less bureaucratic procurement process. Besides that the government has been keen on the use of the system to restore public trust on the part of government spending going to the acquisition of goods and services. And last but not least, the private sector – meaning suppliers, contractors and consultants – need more transparent, easier, cheaper and fairer procurement processes.

The SIASG/Comprasnet is linked to other structuring systems<sup>67</sup> of the Brazilian Government. This way the system enables public procurement officers to check on a series of information that enables the government to set aside suppliers that do not follow the fiscal, labor, social security and related fields legislation, not permitting them to participate in GP opportunities<sup>68</sup>. In other words, the local companies<sup>69</sup>

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<sup>66</sup> SERPRO is the federal IT company that renders information technology and communications services and development to the Ministry of Finance and Ministry of Planning.

<sup>67</sup> Structuring systems are information systems developed by the government to support horizontal common issues administrative and organizational structures. For example, there is a central HR organization in the MP to set out planning guidelines, norms and standards for public servants salaries, training, contracting etc. In each Ministry there is a sector organization to operate and oversee specific career aspects, i.e. teachers in the Ministry of Education. In the indirect administration there are likewise organization, such as for medical personnel in public hospitals. The SIAPE (human resources) is the IT administrative system the management of around 1.2 million active, retired servants and pensions of the Federal Government. Other structuring systems are: SIDOR (for the budget), SIGPLAN (to manage the government planning), and ATIVA (internal auditing).

<sup>68</sup> In attendance to subparagraph XXXIII, of Article 7, of the Federal Constitution, see Law 8.666, of June 21<sup>st</sup>, 1993, amended by Law 8.883, dated 8<sup>th</sup>, 1994, combined with the Laws on Social Security, Income Tax, Labor and Child Labor, as well as the Federal Senate Resolutions on the issues involved.

<sup>69</sup> At present only companies legally constituted under the Brazilian Legislation observe the captioned obligations. Due to the signing of Government Procurement Agreements under the umbrella of regional integration and free trade agreements, such as MERCOSOUTH and MERCOSOUTH-CAN (already signed and needing Congressional approval to be enforceable), the FTAA, EU-MERCOSOUTH, MERCOSOUTH-SACU, to mention some under present

that do not pay their taxes or the employees' social security are not eligible for tendering with the government and easily checked by crossing information on the different structuring data basis. The system also renders parameters and automated thresholds on practiced prices for the items of the materials and services catalogues, thus avoiding scope for over and under pricing. Therefore, the scope for under or over billing and payment of commissions is greatly reduced.

Another innovation introduced is the linking of the SIASG to the SIAFI during the awards phase. In the past it was common for public administrators at the end of the year to rush a series of tenders for goods and services without the corresponding budget allocation, which generated the need for supplementing the budget. Thus, there was a negative impact on the public deficit of the next year.

#### b) Role of SIASG/Comprasnet in Reducing Human Interference and Subjectivity in the Procurement Process

Besides creating strict rules and regulations to try and curb human interference in the GP process, as well as, subjectivity in specifications and evaluation criteria, which is the role of the legislation framework, a good e-GP system has the capability of rendering the space for mal practices and corruption less attractive to those interested in perpetrating such practices. This is achieved by several means, of which the following may be considered the major ones:

- Generation of information that enables more stakeholders to participate in the decision process;
- Better tools for control and auditing and possibility of more productivity in the auditing process itself (by means of on-line real time data);
- Transparency rendering social control due to the low cost and high availability of information for the whole of society; and
- Benchmark data inputs for the establishment of technical and procedure inputs in the tendering process.

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negotiations by Brazil, the same rules will be extended to foreign companies as they gain access to the national GP market. The Federal Government is at present piloting a project to test the concept in two projects funded by the IADB.

There is public perception is that the corruption in Brazil is ingrained in the public sector<sup>70</sup>. In the eyes of the independent observer, Brazil has made little progress on fighting corruption. In fact, Brazil has made important steps to systematically combat corruption. In order to combat corruption more effectively, the Government created the “Controladoria-Geral da União” (CGU)<sup>71</sup>, under the Presidency of the Republic, with the mission to provide due diligence to the complaints on corruption in the federal government. Subsequently, the Federal Secretariat of Internal Control (SFC)<sup>72</sup>, was moved to CGU for further independence from the ministries. In July 2002, Brazil ratified the Inter-American Convention to Fight Corruption of Caracas.

The evidence in public records shows that CGU received more than 6,000 complaints of irregularities since its creation, resolved 2,680, is investigating 2,233 and is seeking additional information regarding 1,087. CGU has acted actively in the cases that received ample coverage in the media (DNER, SUDENE, SUDAM, FAT and TERRACAP<sup>73</sup>). These appear to be big numbers; however, there are more than 800,000 federal government employees in Brazil out of which more than 30,000 carry out government procurement functions<sup>74</sup>.

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<sup>70</sup> Even though there's a natural tendency for distrust of government intentions in Latin American countries, due to the history of successive authoritarian regimes after their independence, in Brazil the voter tends to believe that politicians (who are elected by mandatory vote) are naturally bent on using public funds for personal benefits. The public outcry against corruption has been increased by the efficiency of investigative reporting by the press, which in the past was censored and now has the liberty of publishing. The interesting facet of the issue is that the increase in investigation of corruption cases and the number of incriminated parties in successful trials increases the perception of the problem, though decreases the practice in the long run.

<sup>71</sup> Through Provisional Measure n° 2.143-31, of April 2, 2001.

<sup>72</sup> Created in 1994 under the Ministry of Finance.

<sup>73</sup> The now defunct DNER is the National Roads Department. The recreated SUDENE and SUDAM are the Development Organizations of the Northeastern and the Northern Regions of Brazil. FAT is the Fund to Support Labor. TERRACAP is the National Capital's Land Development Agency.

<sup>74</sup> More details about the CGU annual report and the resolved cases may be found at <http://www.presidencia.gov.br/cgu/>. In 2002, the SFC carried out 15,300 audits and reviews – 4,000 actions in support to TCU and reviews to foreign cooperation and lending.

In respect to the internal and external auditors, according to the World Bank evaluation, both SFC and TCU<sup>75</sup> appear to function adequately as professional audit institutions.” The SIASG/Comprasnet, managerial and technical information modules, supports most of the auditing activities. There are several cases in which the audited institutions were required to reimburse the project’s account for small expenditures considered by SFC to be wrongly procured, i.e., less than three quotations in shopping or direct purchases.

The World Bank<sup>76</sup> also stated that, in addition to the comprehensive report of the President, an annual report prepared by each of the Federal entities, contains an audit opinion from SFC. These annual reports are not published widely, but can be obtained under Brazil’s Freedom of Information Legislation if desired. The reports are forwarded to TCU for their financial statements to be judged. The reports comprise, inter alia, a report on activities prepared by management of the organization and a certification by SFC on financial statements, legal compliance and efficiency.

In sum, the Government has set up a working internal and external auditing and anti-corruption mechanisms that is greatly based on information rendered by the SIASG/Comprasnet, enabling the different levels of public prosecutors to exchange information and technology, follow up and monitoring of the prosecution by the relevant judiciary authorities.

c) Evaluation of e-Ra and Online Procurement: Impacts, Benefits, Difficulties

c.1) Impacts of the SIASG/Comprasnet

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<sup>75</sup> TCU is the Federal Accounts Courts, i.e. external control and auditing body the Government.

<sup>76</sup> <http://opcs.worldbank.org/FM/documents/CFAA/BrazilCFAA2002.pdf> by David Shand Financial Management Advisor, Task Manager; Patricia de la Fuente Hoyes with assistance from the Brasilia Office Team Financial Management Specialist, Claudio Mittelstaedt Consultant; Tulio Correa Financial Management Specialist, Flavio Chaves , Consultant, and local consultants Joaozito Brito Macedo, on the budgetary process; Luiz Carlos Nerosky and Silvio Caracas De Moura, Jr. on budget programming and execution; and Lucius Maia Araujo on the auditing process.

As mentioned before, the SIASG/Comprasnet processes all the contracting of the Federal Administration in a total volume of around BRL 14.0 billion<sup>77</sup>, which is around USD 4.83 billion<sup>78</sup>, for more than 2,000 decentralized procurement units<sup>79</sup>, based on the SICAF registry of government suppliers and contractors of 210,000 firms and individuals. As mentioned before, more than 30,000 federal government employees carry out procurement activities based on the System on a regular basis.

A great part of the procuring methods are still undertaken under the guidance of Law 8.666/93, entailing highly bureaucratic morose and inefficient tendering processes. In order to modify that profile, SLIT/MP undertook a modernization process including the use of RAs and other new procurement procedures designed to speed up and simplify the processing. In the last four years, progress was achieved and trends characterize the Federal Government procurement as follows: Total procurement of goods and services: around USD 6.0 billion (six billion US Dollars)/year (2001/2004). Total procurement of sundry items for administrative function ranges around USD 4.0 billion (six billion US Dollars)/year. In 2004, procurement through RA represented about 20% of the government procurement: USD 1.2 billion (one billion two hundred million US Dollars). Reportedly, the use of RA has rendered savings estimated at 22% of the cost, i.e., USD 264 million. Until December 2004, over 4,200 (accumulated in the period) RAs had been carried out. It is projected that “pregão” will be used in 40% of the government procurement purchased through competitive procedures representing USD 2.4 billion/year, by year 2005.

The Federal Government started a state reform program in 1995 following two guiding principles. These principles are de-bureaucratization and simplification. In order to achieve these objectives, the reform included actions aiming at making use of information technology in the public administration. SLIT/MP is responsible for the coordination in the use of the information technology.

#### c.2) Impact: Costs and Benefits

During SIASG/Comprasnet's existence the Federal Government spent about USD 40 million on system development and maintenance.

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<sup>77</sup> BRL is the Brazilian currency denominated Real (R\$).

<sup>78</sup> At an exchange rate of BRL 2.60 x USD1.00.

<sup>79</sup> Denominated USAGs (General Services Units).

During the first three years of on-line reverse auction use, the Federal Government is estimated to have saved up to USD 315 million. Besides this positive return on investment, the system enables better and more transparent procurement, as well as reducing the red tape in the process. For example, a normal procurement process takes more than two months. The on-line reverse auction may be completed in less than 15 working days<sup>80</sup>.

The use of on-line procurement has also increased the participation of small businesses in government supplies. This might sound as a paradox, more overly to the fact that SMEs are in general less connected to the Internet. This is especially true in developing nations and Brazil is no exception. Because of that, the government has been investing heavily on bridging the digital divide by reducing the cost of buying equipment (through tax rebates and long term subsidized public financing). The market has also helped in making accessible communications and interfacing technology that enables household and small business Internet connections at a very competitive cost. On the other hand SMEs have had the need to connect themselves with clients and suppliers in the private sector supply change, to enable e-commerce and electronic data interchange. Therefore, the mining of government contracts by SMEs is a value added by-product of their connectivity.

Under the traditional procurement methods the cost of participation in government tenders are relatively high, due to the time and effort to be implemented by suppliers participating in the tender. Besides not having a very transparent process, in which the supplier will be ascertained that it is receiving fair and equal treatment relatively to other participants, the supplier is not assured that it will be able to recuperate the investment spent on participating in the tender. Even more, seeing that governments aren't specially renown for on time payments for goods and services acquired, this becomes an added risk to the supplier. All these factors add up as incentives for small and medium enterprises not to participate in GP. On the other hand, e-GP not only brings down the participation cost of the supplier, give a more transparent, and therefore a fairer treatment

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<sup>80</sup> The minimum legal requirement established for publication is 8 working days. Therefore, if the procurement officer uses all the resourced available in the catalogue for specification of standard goods and services it is possible to specify (pre-bidding phase), announce, evaluate bids and award the contract in less than 15 days.

to all parties involved. And last but even more important, in the case of the SIASG/Comprasnet, it guarantees timely payments for the goods and services acquired through the Portal by linking the financial management system (SIAFI) with the e-GP system. This assures that not only the agency or entity has available budget resources but all financial availability.

Besides, as seen in Table 1, the total investment in the SIASG/Comprasnet System to date has been around USD 40 million and that during the same time span the Federal Government has saved around USD 310 million, which gives us a 7.75 ratio on the investment. If taken into consideration other factors, to the cost-benefit ratio (using adapted methodologies, developed for measuring of the unit cost reduction in internet banking) to the marginal cost of acquisition on the traditional paper based process and the e-GP process, this gives the Government a very positive outlook, especially dealing with the tendering of high frequency small valued purchases (that have a low aggregated cost, such as office supplies and services). According to studies developed by the Government of the State of São Paulo coupled with simulations conducted by the author on a sample of the registered Tenders posted on the SIASG/Comprasnet, the reduction in transaction cost is over 10 to 1 in favor of the SIASG/Comprasnet over the traditional procurement processes<sup>81</sup>.

### c.3) Transparency and Efficiency

The transparency and effectiveness of public procurement can be much enhanced through to an increased use of the Internet: to publicize business opportunities, to download tender documents, to publicize and adjudicate contracts, and to deliver proposals. The scope of the work carried out by SLTI/MP and SERPRO, and in particularly the use of the Internet as a tool in the conduct of procurement, compares favorably with the best international experiences. This has generated great interest in technical cooperation and capacity building activities with international organizations such as World Trade Organization (WTO), the World Bank, Interamerican Development Bank (IADB), Organization of

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<sup>81</sup> For more details on the São Paulo case, see the Study "Modelagem de Impacto de Sistema Eletrônico de Compras Públicas: Estudo de Caso da BEC/SP", presented in the "XXII Simpósio de Gestão da Inovação Tecnológica", in Salvador, Bahia, Brazil, from November 6 to 8, 2002. The Authors findings corroborates the one above, but has yet to be published

American States (OAS) and The United Nations Commission on International Trade Law (UNCITRAL), as well as with neighboring countries, particularly Bolivia, Guatemala, Colombia, Nicaragua and Peru. In the case of the multilateral organization the Brazilian Government has been invited to share experiences and expertise with other developing nations, as well as, with capacity building of these organizations staffs to implement reforms in government procurement in countries where they implement public sector reform programs. Brazil has also organized some technical visits for neighboring countries and even entered into a technical cooperation agreement with the Bolivian Government to help implement the Comprasnet in Bolivia.

The SIASG/Comprasnet in this sense has been considered by several organizations as a cornerstone of e-procurement. The World Bank carried out an assessment with detailed background information and characteristics in which it considered to be a cutting edge system providing transparency, economy, and efficiency to government procurement. The Bank together with the IADB, as part of their efforts to harmonized procurement regulations and adopt efficient and transparent national systems is doing a pilot project<sup>82</sup> this year based on the SIASG/Comprasnet. According to this pilot, parts of the system will be used as vehicle of Bank lending. It is expected that within a few years and after certain improvements suggested, the use of the SIASG/Comprasnet in the Bank's operations will increase.

d) Evaluation: Failure or Success?

Notwithstanding the constraining environment that is imposed by Law 8,666/93, SLTI/MP has experimented with potentially significant technological innovations, whose institutionalization has solidified through Law 10.520/02 (RA) and expansion is occurring gradually. In this regard and in response to those challenges, the Federal Government is moving rapidly towards e-government and e-GP. Moving further towards modern practices, the Government also developed the e-RA. In the period 2001-2003, the use of RA and e-RA reduced the number of contracts awarded through non-competitive methods<sup>83</sup> by around 20%. But still, less than 50% of the government procurement follows real

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<sup>82</sup> The Pilot Project is based on the IADB 1.479/OC-BR Loan Agreement for the Program to Rehabilitate the Central Area of the São Paulo Municipality (PROCENTRO).

<sup>83</sup> These being, direct sourcing or limited tendering.

competitive procedures. The following graph shows the profile of the government procurement:

The success in implementing this new procurement method may be credited to some factor such as: (i) more weight on economy and efficiency, not dispensing formal requirements, which are kept to a minimum; (ii) post-qualification of bidders, leaving little room for frivolous complaints; and (iii) intensive capacity building training for those directly involved, i.e., the “pregoeiros”<sup>84</sup>.

The Government has also been putting a lot of effort to increase the transparency and to improve the supervision of the government’s procurement by making use of e-GP mechanisms. The two main systems as state before are the SIASG/Comprasnet and SIASG/Obrasnet<sup>85</sup>. The measure of the success of the Brazilian Government has been the number of frauds in traditional procurement methods, when it began to cross check the data available on the systems.

There are many criticisms that may be levied against a radical swing of the GP practice to e-GP, especially in developing nations. Those related to the digital divide have been dealt with in item 8 above, as well as, the steps the Brazilian government is taking to deal with them. Other problems related to e-GP are information security, where it is important to mention encryption, identification of participants, enforcement of actions and violation, capture and/or modification of information in transit through the net, amongst others. On the legal side, issues such as authentication of digital documents, legislation on criminal and civil actions perpetuated by participants or third parties must be taken into consideration by the legislators, law enforcement agencies and courts in setting-up the necessary framework for doing public procurement through the Internet. Also, as mentioned before, specific regulations as to what is appropriate to procure by electronic means must be clearly set-up, so as to not generate market distortions or bankrupt local businesses in unfair competition with large companies, or even, reduce competition which is one of the main objectives of adopting e-GP.

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<sup>84</sup> Reverse Auctioneers are the specialized public servants able to conduct the RA sessions, which are selected from procurement professionals who have been accredited after having received specific training.

<sup>85</sup> SIASG/Obrasnet is the web interface created to enable social control and community participation at the local municipal small-scale civil works projects <http://www.obrasnet.gov.br>.

As mentioned before, the Brazilian government at the appropriate stages of the development of the SIASG/Comprasnet considered all these issues. Though in the Brazilian case many of the now existing criminal (hacking and cracking) practices were still at infancy and security measures were taken care of in an ad-hoc fashion. Presently, these issues should necessarily be taken into account already in the design phase of the public entity deciding to adopt the e-GP approach.

#### e) Challenges Faced by an Evolutionary Environment

E-GP is the latest wave to hit the Governments of Latin America. Though it has potential to take care of most of the ills that have afflicted GP, its implementation has become debatable. Many good features of e-GP are not being used on account of non-aggregation of demands by the several agencies and departments of the governments, as they develop separate systems.

The e-GP system enables large number of tenders at one location, bringing greater participation of suppliers and quicker finalization. Why should this feature not be used to get better transaction costs and best possible price, apart from standardization of the procurement process? Up to now, governments have allowed the procurement of goods and services in decentralized manner. But the scenario changed after e-GP started to become a reality. It not only has allowed them to aggregate the demand of their various agencies and entities, but also helped them by producing much needed information for expenditure analysis, which in turn would permit them to cut down on unnecessary expenditures.

After the long track record of success reached by the Brazilian Government, time has come to try to develop the model to be able to fit the specificities of countries with diverse cultural and institutional backgrounds from Brazil. The experience of Brazil is relevant because it started as a centralized e-GP system for all Federal Government entities in 1997 with 61,113 registered vendors. At the end of 2004, about 200,000 suppliers were registered with the system and around 2,000 new registrations are being aggregated every month. Besides the number of suppliers, the volume of transactions on the e-GP system is quite substantial, ranging in the tens of thousands a year. Even though as stated before, the law enables other systems to independently co-exist, the issue of volume continues to be fundamental if the best cost-benefit ratio is to be sought. Therefore, for several years the Federal Government has been seeking to sign agreements with states and municipalities to foster the

use of the SIASG/Comprasnet at other levels of government, so as to bring down the total transaction cost of the e-GP System.

In contrast to this scenario, many Latin American Governments, at national and sub-national levels, under their e-Government strategies have put on their priorities the development or acquisition of e-GP systems to deal with what they envision as a fix to their traditional procurement methods. Even though this may be justifiable on the transparency stance, individual governments and/or agencies and entities with 200 to 1000 tenders a year are going for e-GP on their own. Naturally, the transaction costs are higher, and the ultimate beneficiaries will be the suppliers of e-GP systems, who sell more systems or get a higher transaction fee even though they use the common resources for all such governments and their agencies and entities.

The multilateral development banks are now developing E-GP guidelines. These post a valid framework for the public sector of each Country to develop their e-GP strategies under sound premises based on the internationally recognized best practices. If most of the governments of the Region follow the same general guidelines and principals, then why should there be any dissimilarity in the procurement process? Of course, the local language interface will have to be provided to ensure its acceptability. After all, the several experiences worldwide have shown huge savings of resources by adoption of the e-GP system. By analogy, seeing that governments are taking the steps to integrate their on-line tax systems with common features and be part of the network to share information on taxpayers and their doings inside and out of each Country, there should not be any problem in adopting a limited number of e-GP systems in the Region.

## CONCLUSIONS

### 1. Success in promoting efficiency

Particularly in comparison with its neighbors, government procurement in Brazil is well structured and is functional. Moreover, in the last few years, it has introduced notably interesting features and methods for government e-procurement that are worldwide reference. There is insufficient data from a broad enough range of stakeholders to describe the system as a total success, but it can certainly be described as largely successful, bringing an estimated average 22% reduction of final

price for goods and services acquired through reverse auction and price quoting. Suppliers also see it as successful due to it being linked to the financial payment system, guaranteeing timely payments on supplies sold to the government. The immediate benefits of the modernization of the public services and functions include more transparency, increased business opportunities and lower prices. These benefits appear to be in place through the actions in the new model of government procurement, which kicked off in 1999 with SIASG/Comprasnet. Two new procedures for buying goods and services for the government units are in place: “pregão” and “cotação eletrônica” (electronic purchases).

## 2. Success in promoting transparency

On bottom line, the SIASG/Comprasnet has also served to promote in quantitative and qualitative transparency in the government procurement, by facilitating the implementation of centralized control while enabling decentralized execution of funding for government supplies. Besides, the public and main local stakeholder and those abroad, involved in the procurement process, have perceived the change in environment with the implementation of e-GP. One of the statistics to corroborate the generation of fair practices on part of the procuring entities is that the number of complaints filed on average in the electronic inverse auction vis-à-vis the traditional methods have plummeted from around 6% to less than 1%. This is mainly due to the transparency and efficiency of the on-line process.

## 3. Success in promoting transparency

The sine qua non is that the SIASG/Comprasnet has also served to promote in quantitative and qualitative transparency in the government procurement, by facilitating the implementation of centralized control while enabling decentralized execution of funding for government supplies. Besides, the public and main local stakeholder and those abroad, involved in the procurement process, have perceived the change in environment with the implementation of e-GP. One of the statistics to corroborate the generation of fair practices on part of the procuring entities is that the number of complaints filed on average in the electronic inverse auction vis-à-vis the traditional methods have plummeted from around 6% to less than 1%. This is mainly due to the transparency and efficiency of the on-line process.

## REFERENCES

- ALMEIDA, Marcos Ozorio de (2001) "O Que É Governo Eletrônico", Tema Magazine, 153, 30-42.
- ALMEIDA, Marcos Ozorio de (2002) "e-Procurement by Brazil's Federal Government", eGovernment for Development - Success/Failure Case Study No.12, Project is coordinated by the University of Manchester's Institute for Development Policy and Management. The project is funded and managed by the Commonwealth Telecommunications Organisation as part of the UK Department for International Development's "Building Digital Opportunities" programme. <http://www.egov4dev.org/brazeproc.htm>.
- ALMEIDA, Marcos Ozorio de (2004) "Case Study on Electronic Government Procurement in Brazil - Use of Information and Communications Technologies to Increase Transparency and Efficiency and reduce Corruption in the Relationship between the Government and Suppliers", CUTS-CITEE, Geneva.
- ALMEIDA, Marcos Ozorio de; MAZA, Jorge Claro de la; NISIS, Eliel Hasson (2004) "Retos en la Modernización de las Prácticas de Compras y Contrataciones del Estado como un Instrumento para el Comercio y Desarrollo - Realidades y Desafíos de los sistemas de compras del Estado en la Región", 4th. International Seminar on Government Procurement, Organization of American States, São Paulo.
- ARROWSMITH, Sue (2004) "Public Procurement: an Appraisal of the UNCITRAL Model Law as a Global Standard", 53 *International and Comparative Law Quarterly* 17-46
- BRAZIL, Presidency of the Republic (2004) "Informações sobre o Brasil", "Brasil em Temas", "Estrutura da União" and "Ações do Governo Federal", <http://www.brasil.gov.br/>.
- BRAZIL, Presidency of the Republic/Civil Cabinet, Ministry of Planning, Budget and Management (2002) Law 10.520.
- BRAZIL, Presidency of the Republic/Civil Cabinet, Ministry of Planning, Budget and Management (2002) "2 Anos de Governo Eletrônico - Balanço de Realizações e Desafios Futuros", <http://www.governoeletronico.e.gov.br>.

- BRAZIL, Presidency of the Republic/Civil Cabinet, Ministry of Planning, Budget and Management (1993), Law 8.666/93 and modifications.
- BRAZIL, Presidency of the Republic/Civil Cabinet, Ministry of Planning, Budget and Management (1994), Decree 1.094/94.
- BRAZIL, Presidency of the Republic/Civil Cabinet, Ministry of Planning, Budget and Management (2000), Decree 3.555/00.
- BRAZIL, Presidency of the Republic/Civil Cabinet, Ministry of Planning, Budget and Management (2000), Decree 3.693/00.
- BRAZIL, Presidency of the Republic/Civil Cabinet, Ministry of Planning, Budget and Management (2001), Decree 3.784/01.
- BRAZIL, Presidency of the Republic/Secretariat of Federal Administration, Ministry of Planning, Budget and Management (1992), Portaria SAF/PR 2.050.
- BRAZIL, Ministry of Federal Administration and State Reform, Ministry of Planning, Budget and Management (1995), Portaria MARE 5.
- BRAZIL, Presidency of the Republic, Ministry of Planning, Budget and Management (2000), “Plano Plurianual – Avanço Brasil”.
- CAMPANÁRIO, Milton de A. and DA SILVA, Marcello M. (2002) “Modelagem de Impacto de Sistema Eletrônico de Compras Públicas: Estudo de Caso da BEC/SP”, presented in the “XXII Simpósio de Gestão da Inovação Tecnológica, in Salvador, Bahia, Brazil, from November 6 to 8, 2002.
- FERNANDES, Ciro Campos Christo (2004) “Impactos dos Sistemas de Compras Eletrônicas na Administração Pública - O Caso do SIASG/Comprasnet”. In: CHAHIN, Ali, CUNHA, Maria A., KNIGHT, Peter T. e PINTO, Solon L. (orgs.) E-gov.br - A Próxima Revolução Brasileira, Prentice Hall/Financial Times, 2004.
- FERRER, Florencia (2004) “E-Government – O Governo Eletrônico no Brasil”, Editora Saraiva 2004.
- FERRER, Florencia (2002) “Bolsa Eletrônica do Estado de São Paulo”, Paper, 12 p. published Universidade de São Paulo – FAPESP, <http://www.cqgp.sp.gov.br/downloads/FERRER.BEC.RESUMO.pdf>, 2002.

- JOIA, Luiz Antônio and ZANNOT Fuad (2002) “Internet-Based Reverse Auction by the Brazilian Government”, The Electronic Journal on Information Systems in Developing Countries <http://www.is.cityu.edu.hk/research/ejisd/vol9/v9r6.pdf> and <http://www.ejisd.org>.
- UNCITRAL (1993) “UNCITRAL Model Law on Procurement of Goods and Construction”.
- WORLD BANK (2003) “Brazil – Country Procurement Assessment Report”. Approved by the Brazilian Government in 2004.
- YUKINS, Christopher R. (2003) “Reform of the UNCITRAL Model Procurement Law: A Report on Experience in the U.S. Procurement System”.
- YUKINS, Christopher R. and SCHOONER, Steven L. (2003). “Model Behaviour? Anecdotal Evidence of Tension between Evolving Commercial Public Procurement Practices and Trade Policy.” 9 International Trade Law & Regulation 4.